Before the
Federal Communications Commission
Washington D.C., 20554

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In the Matters of	)	CC-Docket No. 98-147
Deployment of Wireline Service Offering Advanced Telecommunications Capability	)	

Comments of Mitretek Systems, Inc.

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I. Introduction

In these comments Mitretek Systems, a not-for-profit, private sector systems engineering and information technology company working in the public interest, limits its comments to insights regarding neutral administration of public resources and the application of these insights to local loop spectrum management issues. As a unique applied research oriented organization and as respondent to the North American Numbering Council's (NANC) North American Numbering Plan Administrator (NANPA) request for qualification statements, Mitretek Systems is situated to share a different view on the neutral administration of resources at the core of the modern telecommunications network.

As the modern telecommunications network evolves, continues to see increasing competition, and continues to converge, many of the administrative functions formerly performed by the then monopoly companies must be transitioned to other organizations. Additionally new functions are emerging that have no historic parallel. Recently, the Commission and industry considered and, in some cases, acted to name an organization to function in the role of independent, neutral, third party administrator or arbitrator.[1] Such neutral administrators should be named only when unique, public resources are to be addressed or when industry requires arbitration related to unique technology- or market-based questions. Such neutral administrators should only be named when the marketplace fails to yield a more normal competitively based solution or when the

[1] *In re* Administration of the North American Numbering Plan, Toll Free Service Access Codes, *Third Report and Order*, 12 FCC Rcd 23014, (October 9, 1997) ("Third Report and Order"). *In re* Implementation of the Subscriber Carrier Selection Changes Provisions of the Telecommunications Act of 1996, Policies and Rules Concerning Unauthorized Changes of Consumers' Long Distance Carriers, *Second Report and Order and Further Notice of Proposed Rulemaking*, FCC 98-334, CC Dkt. 94-129 (December 17, 1998).

normal processes of industry cooperation or standards setting fails to provide a needed solution.

Under those unique situations, the neutral administrator should be named and directed through the Commission's rules. The rules should explicitly address the neutrality, operations, cost-recovery, and termination of the named organization. Regarding neutrality of any such administrator, Mitretek Systems suggests that assurance of neutrality consist of many aspects, including the structure, oversight, and funding of the neutral administrator.

Mitretek Systems recommends that the Commission establish a dispute resolution process regarding the existence of disturbers in shared facilities. Mitretek Systems takes no specific position with regard to the involvement of a third party in this role, deferring to an industry consensus in this matter. However, Mitretek observes that the disparity between emerging loop spectrum management *standards* and historical loop deployment and management *practices* in the industry has created a wide range of specific instances that could result in disputes. Further, the potential for disparity in resources between parties in such disputes is great, increasing the risk that apparent or actual inequities will arise in this area. Mitretek observes that the involvement of a neutral third party in such disputes could help to ensure that the application of the Commission's dispute resolution process is regarded as consistent, fair and open by all parties.

II. Naming of Neutral Administrators Should Be Unique and Exceptional, and Limited to Situations In Which Other Alternatives Are Not Available

The naming of a neutral, third party administrator should be a solution of last resort—a solution used on a unique and exceptional basis only when the marketplace or normal

industry cooperation means fails to provide a solution. As an example, the Commission determined that telephone numbers were a critical, public resource not owned by any carrier. As a result, the Commission, with the assistance of industry, named the NANPA under Commission rules and significant requirements of neutrality and objectivity to administer this unique public resource. Similarly, the Commission and industry recognized that the database lookup required for local number portability was a call setup function best left to industry and the competitive forces of the marketplace. As a result, the number portability administrative function was constructed by using limited-liability corporations formed by the industry not by Commission rules. We believe that these are good examples of when to name, and when not to name, neutral administrators.

III. Such Administrators Should Be Named and Directed Through Commission Rules

When the Commission determines that there, in fact, is a unique situation requiring the naming of a neutral administrator, the Commission should then name and direct the administrator through the Commission's rules. Specifically, the Commission itself must be engaged in the definition of the neutral administrator's roles, functions, and responsibilities. To that end, the Commission should:

- Base the neutral administrator's authority in Commission rules, not in contract or property principles.
- Explicitly define the neutrality requirements for the administrator by:
  - Identifying what neutrality characteristics apply.
  - Not allowing any ties to service providers.
- Consider funding on a cost recovery basis and managed in a manner similar to existing Commission cost allocation manuals. If the naming of the neutral

administrator includes a cost competition, the Commission will ensure fairness and thoroughness in evaluating the totality of the qualifications presented.

- Provide funding through an industrial fund, which is independently managed by a neutral entity.
- Empowering the neutral entity with enough "teeth" to meet the duties assigned.

Also, the Commission should consider examples from other technology and scientific areas. Definitions and rules requiring neutrality, impartiality, and conflict of interest exist in other technology sectors. Such rules have been established, for example, by the Massachusetts Institute of Technology (MIT) Ethics Center, the National Science Foundation (NSF), National Institutes of Health (NIH), and the Association of American Universities (AAU).

With respect to its own neutrality rules, the Commission should gather lessons from its rules for NANPA, local number portability administration (LNPA), and universal service administration.[2] Regarding NANPA, the Commission has promulgated neutrality rules at 47 CFR § 52.12. Regarding LNPA, the Commission has its neutrality rules at 47 CFR § 52.26 where they are included by reference to a NANC subcommittee created document. Regarding universal service administration, the Commission has its neutrality rules at 47 CFR § 54.701. While all three of these sets of neutrality rules are similar in language and structure, the statutory authority and administration of these rules differs. The differences in such authority, oversight, and management should be considered by the Commission when neutrality rules are developed for the processes under consideration for neutral administration in this proceeding.

[2] Mitretek notes that the Commission in paragraph 89 misidentified the role of the NANPA as that of the LNPA. *In re* Deployment of Wireline Service Offering Advanced Telecommunications Capability, *First Report and Order*, FCC 99-48, CC Dkt. 98-147, at para. 87 (1999).

IV. Neutral Administrator Involvement in Loop Spectrum Management

Mitretek recommends that the Commission develop a dispute resolution process regarding the existence of disturbers in shared facilities. Mitretek believes that the industry must reach consensus in this matter for any dispute resolution process to operate effectively. As the Commission and industry considers such a process, Mitretek offers the following observations.

1. While the industry has been working to build consensus on various technical issues concerning disturbers in shared facilities, the disparities between emerging loop spectrum management standards and historical loop deployment and management practices are many and varied. The ongoing work of the industry in T1E1 and ATIS will do much to smooth the way for deployment of advanced technologies going forward, but the reality is that most of the copper loop in the country (and most operations practices and supporting OSSs) were not deployed with unbundling and advanced technology in mind.

2. Although consistency of practice in the deployment of loop technologies has been greatest in the last two decades, there is no guarantee of consistency within or between ILECs in terms of loop lengths, use of loading coils and bridge taps, presence of known disturbers (e.g., AMI T1) in binder groups, etc. Furthermore, record keeping and O&M practices regarding existing loops are variable and often problematic, making it difficult in many cases to determine *a priori* the suitability and availability of existing loops for deployment of advanced technologies by CLECs.

3. This reality, and the fact that competing business interests rather than technical cooperation will drive the use of shared facilities, makes it likely that disputes will arise on an ongoing basis.

4. The potential disparity in corporate resources between parties involved in such disputes is large. Although the largest CLECs may be able to match a large ILEC's access to legal, technical, and financial resources, most smaller ones cannot. Similar disparities might exist between an IXC in a CLEC role and a smaller independent ILEC. Likewise, disparities could exist between the vendors of the technologies involved in a dispute, with smaller vendors of advanced technology products less likely to be able to provide technical support to a client involved in a dispute than large equipment vendors. Without a fair and effective dispute resolution process, such resource disparities could place an unequal competitive burden on the parties involved.

5. Standards organizations such as T1E1 will play a primary role in achieving industry consensus with regard to the definition of significant degradation of services due to the presence of disturbers, but resolution of specific disputes is not an appropriate role for them to play. Further, disputes may arise prior to the establishment of industry consensus, particularly as new advanced technologies emerge, possibly necessitating interim resolution of disputes in advance of technical standards. The Commission's dispute resolution process should anticipate this possibility.

6. It would be valuable for the dispute resolution process to be open, consistent and a matter of public record. This could help to minimize the probability of overlapping or duplicative disputes that could spawn conflicting resolutions (e.g., a technology found to be interfering in one dispute but non-interfering in another), and to ensure that the effects of such resolutions could be cumulative and available to subsequent parties.

7. The Commission could simply provide rules to which the parties in a dispute must conform. However, this approach would work best if all parties are cooperative, and the rules are exhaustive and clear, such that all parties can interpret them consistently. Furthermore, this would probably result in a *de facto* role for the Commission as final arbiter in those instances where there is dissatisfaction in an outcome or differing interpretations of the rules.

Mitretek offers the following observations regarding the naming of a neutral entity for loop spectrum management.

1. The industry has been moving forward expeditiously to establish the technical underpinnings of a consensus on loop spectrum management issues. The activities of such bodies as T1E1 and ATIS will continue to be invaluable, particularly with regard to the development of standards such as the proposed American National Standard for Spectrum Management, along with the development of associated PSD masks, and methods and algorithms for evaluating potential degradation scenarios and the cross-service impacts of disturbers. There is a potential role for third party participation in this process, but in general the industry has demonstrated its ability to generate technical standards via a voluntary effort. In this regard, the Commission should focus its attention on ensuring that the interests of all affected parties, including the smaller players, are effectively represented.

2. Although their work has proven invaluable, voluntary industry organizations such as T1E1 and ATIS have no authority to enforce compliance or resolve disputes. Hence another potential role for a third party is in the dispute resolution process discussed above, as well as in assisting the Commission in formulating rules and procedures for the industry to follow. This role could also extend to the

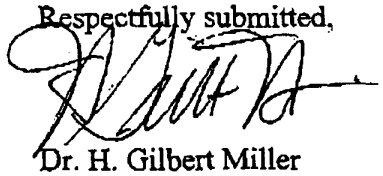
development of interim procedures to be applied in advance of full industry consensus in the standards bodies, if needed.

3. Standards and procedures alone do not address the administration of loop spectrum management policies, nor do they establish fair and open management and operations practices regarding shared facilities. Mitretek observes that the wide variability in historical loop deployment and management practices among ILECs not only increases the likelihood of disputes, as previously discussed, but also creates a significant challenge with regard to the consistent, fair, and open administration of loop spectrum management policies, particularly with regard to ensuring fair competitive access to usable loops by CLECs. Mitretek believes that an effective voluntary industry effort in this area would be difficult to achieve, and that industry consensus as to a third party role in loop spectrum management is more likely to focus on administrative than technical needs.

4. Administration of loop spectrum management policies could include a wide range of functions. These could include collection and dissemination of *a priori* information, such as an inventory of "qualified areas" with consistent ILEC loop practices that are consistent with the deployment of advanced technologies, or information regarding known problem areas. It could also include collection of "after the fact" data to confirm performance parity in application of the rules, such as comparisons of service turn-up failure rates for the ILEC and CLEC(s) sharing binder groups.

5. To be effective in this role, any neutral entity named should be able to demonstrate sufficient technical depth and experience to be credible to the industry, as well as true neutrality.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that on this 15th of June 1999, I caused copies of the foregoing Comments of Mitretek Systems to be served on:

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